In the Claims

1. (Currently amended.) A lithium ion secondary battery comprising a positive electrode, a negative electrode and a solid electrolyte, and being free of an organic electrolytic solution said solid electrolyte being made in the form of a thin film comprising a lithium ion conductive inorganic substance, selected from the group consisting of a lithium ion conductive crystal and a lithium ion conductive glass-ceramic, said thin film solid electrolyte having a thickness of 20 μm or below wherein the solid electrolyte and the positive electrode exist in a mixed state in an interface between the solid electrolyte and the positive electrode and/or the solid electrolyte and the negative electrode exist in a mixed state in an interface between the solid electrolyte and the negative electrode..

2. (Cancelled.)

3 (Original.) A lithium ion secondary battery as defined in claim 1 wherein said thin film solid electrolyte is formed directly on an electrode material or materials for the positive electrode and/or the negative electrode.

4. (Original.) A lithium ion secondary battery as defined in claim 1 wherein said thin film solid electrolyte has lithium ion conductivity of 10^{-5} Scm.$^{-1}$ or over.

5. (Original.) A lithium ion secondary battery as defined in claim 1 wherein said thin film solid electrolyte comprises the inorganic substance in an amount of 40 weight % or over.

6. (Previously presented) A lithium ion secondary battery as defined in claim 1 wherein said inorganic substance is a lithium ion conductive crystal.

7. (Cancelled.)

8. (Previously presented.) A lithium ion secondary battery as defined in claim 1 wherein

said inorganic substance is a lithium ion conductive glass-ceramic.

9. (Original.) A lithium ion secondary battery as defined in claim 1 wherein said inorganic substance is powder of the inorganic substance.

10. (Previously presented.) A lithium ion secondary battery as defined in claim 9 wherein said inorganic substance powder is powder of a lithium ion conductive glass-ceramic.

11. (Original.) A lithium ion secondary battery as defined in claim 9 wherein an average particle diameter of the inorganic substance powder is 1.0 μm or below.

12. (Original.) A lithium ion secondary battery as defined in claim 9 wherein said thin film solid electrolyte comprises a lithium ion conductive inorganic substance powder in a polymer medium.

13. (Original.) A lithium ion secondary battery as defined in claim 9 wherein said thin film solid electrolyte comprises a lithium inorganic salt and lithium ion conductive glass-ceramic powder in a polymer medium.

14. (Original.) A lithium ion secondary battery as defined in claim 3 wherein said thin film solid electrolyte is formed by direct coating on an electrode material or materials for the positive electrode and/or the negative electrode.

15. (Original.) A lithium ion secondary battery as defined in claim 3 wherein said thin film solid electrolyte is formed by crystallizing an amorphous layer which is formed by direct coating on an electrode material or materials for the positive electrode and/or the negative electrode.

16. (Original.) A lithium ion secondary battery as defined in claim 1 comprising a positive electrode, a negative electrode and a solid electrolyte wherein said positive

and/or negative electrode comprises lithium ion conductive inorganic substance powder.

17. (Original.) A lithium ion secondary battery as defined in claim 16 wherein said inorganic substance powder in the positive and/or negative electrode has an average particle diameter of 3 μm or below.

18. (Cancelled.)

19. (Cancelled.)

20. (Cancelled.)